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Inventor:	Christopher J. Stone
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Title:	Multi-device Distributed Digital Video Recording Systems and Methods
Examiner:	Graham, Paul J.
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REVISED APPEAL BRIEF

This Revised Appeal Brief is timely filed in response to the Notice of Non-Compliant Appeal Brief mailed on February 3, 2009.

Please enter this as an Appeal to the Examiner's Final Rejection mailed from the U.S. Patent and Trademark Office on May 13, 2008. The Notice of Appeal was filed November 13, 2008.

(I) Real Party in Interest

General Instrument Corporation, a wholly owned subsidiary of Motorola, Inc., is the real party in interest.

(II) Related Appeals and Interferences

There are no related appeals or interferences known to the Applicant.

(III) Status of Claims

Claims 1-33 are pending and presently stand twice and finally rejected and constitute the subject matter of this appeal. Applicant appeals all pending claims 1-33.

(IV) Status of Amendments

Applicant did not submit any amendments to the claims in response to the Final Rejection mailed from the U.S. Patent and Trademark Office on May 13, 2008.

Applicant's most recent amendment to the claims was submitted on February 22, 2008, in response to the non-final Office Action dated September 12, 2007, and was entered by the Examiner. The claims as thus amended are included in Appendix A attached hereto.

(V) Summary of Claimed Subject Matter

Embodiments of the present invention concern a method, such as that recited by claim 1, for providing a multi-device distributed digital video recording system. A request (14) is broadcast from a requesting digital video recorder (DVR) (10) to a

plurality of networked DVRs (12, 16) seeking resources of a dormant DVR. *See*, *e.g.*, page 4, lines 14-18, and FIGs. 1 and 2. A response (18) to the request (14) is received from at least one dormant DVR (16) in the plurality of networked DVRs (12, 16) indicating availability of resources. *See*, *e.g.*, page 4, lines 18-20, and FIG. 2. A granting DVR (20) is selected from the at least one dormant DVR (16) with available resources. *See*, *e.g.*, page 4, lines 20-22, and FIG. 3. A session is established between the requesting DVR (10) and the granting DVR (20). *See*, *e.g.*, page 4, lines 22-23. Resources of the granting DVR (20) are provided for use by said requesting DVR (10). *See*, *e.g.*, page 4, lines 23-25.

Other embodiments of the present invention concern a multi-device distributed digital video recording system, such as that recited by claim 17. The system includes a plurality of networked digital video recorders (12, 16), a requesting digital video recorder (DVR) (10) capable of broadcasting a request (14) to said plurality of networked DVRs (12, 16) seeking resources of a dormant DVR (16), and at least one dormant DVR (16) in the plurality of networked DVRs (12, 16) capable of receiving the request (14) and for providing a response (18) to said requesting DVR (10) indicating availability of resources. *See*, *e.g.*, page 4, lines 14-20, and FIGs. 1 and 2. In the system, the requesting DVR (10) selects a granting DVR (20) from the at least one dormant DVR (16) with available resources. *See*, *e.g.*, page 4, lines 20-22, and FIG. 3. A session is established between the requesting DVR (10) and the granting DVR (20). *See*, *e.g.*, page 4, lines 22-23. Resources of the granting DVR (20) are made available for use by the requesting DVR (10). *See*, *e.g.*, page 4, lines 23-25.

Further embodiments of the present invention concern a digital video recorder (DVR) (100), such as that recited by claim 33, for use in a multi-device distributed digital video recording system. The DVR (100) includes at least one tuner (102, 104), at least one storage device (110), and a processor (112). *See*, *e.g.*, page 4, lines 26-29; page 5, lines 1, 15-16; and FIG. 4. The processor (112) is enabled for at least one of the two following capabilities. *See*, *e.g.*, page 5, lines 4-14. The first capability includes broadcasting a request (14) to a plurality of networked DVRs (12, 16) seeking resources of at least one dormant DVR (16), receiving a response (18) to the request (14) from the at least one dormant DVR (16) indicating availability of resources, selecting a granting DVR (20) from the at least one dormant DVR (16) with available resources, establishing a session with the granting DVR (20), and utilizing resources of the granting DVR (20). *See*, *e.g.*, page 5, lines 4-9. The second capability includes receiving a broadcast request (14) from a requesting DVR (10) seeking available resources, responding to said requesting DVR (10) regarding availability of resources, establishing (if resources are available and if selected by the requesting DVR (10)) a session with the requesting DVR (10), and providing resources for use by the requesting DVR (10). *See*, *e.g.*, page 5, lines 9-14.

(VI) Grounds of Rejection to be Reviewed on Appeal

Whether the rejection of claims 1-3, 17-19 and 33 under 35 U.S.C. § 103(a) as being unpatentable over Agnihotri in view of Pessach is proper.

Whether the rejection of claims 4, 6-16, 20 and 22-32 under 35 U.S.C. § 103(a) as being unpatentable over Agnihotri and Pessach in view of Marshall is proper.

Whether the rejection of claims 5 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Agnihotri, Pessach, and Marshall in view of Breslauer is proper.

(VII) Argument

Rejections under 35 U.S.C. §103

Group 1 – Claims 1-3, 17-19 and 33

Claims 1-3, 17-19 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0184638 to Agnihotri et al. (hereinafter "Agnihotri") in view of U.S. Patent Publication No. 2005/0080858 to Pessach (hereinafter "Pessach").

The rejections of claims 1-3, 17-19 and 33 under 35 U.S.C. § 103(a) are respectfully traversed. The difference between the claims and the Agnihotri and Pessach references, taken either alone or in combination, are nonobvious.

Claims 1, 17, and 33

In rejecting independent claims 1, 17 and 33, the Examiner asserts Agnihotri teaches broadcasting a request from a requesting DVR to a plurality of networked DVRs in paragraphs [0025] and [0029].

Applicant respectfully disagrees that Agnihotri discloses "broadcasting a request from a requesting digital video recorder (DVR) to a plurality of networked DVRs seeking resources of a dormant DVR," as recited by independent claim 1, "broadcasting a request to said plurality of networked DVRs seeking resources of a dormant DVR," as recited by independent claim 17, and "broadcasting a request to a plurality of networked DVRs seeking resources of at least one dormant DVR," as recited by independent claim 33.

The portions of Agnihotri cited by the Examiner for this feature nowhere disclose the claimed limitation. To the contrary, in Agnihotri, resource sharing server 130 receives the request for available resources. See paragraph [0039] ("When resource sharing server 130 receives a resource availability request …"). Thus, the request in Agnihotri et al. is unicast from a single DVR to the resource sharing server 130 and not broadcast to a plurality of networked DVRs as presently claimed.

In addition, claims 1, 17 and 33 each recite that the response from at least one dormant DVR is an answer to the request. Thus, in order for a dormant DVR to reply, it must receive the request. Since the request is only received by resource sharing server 130, it follows that any potentially dormant DVR in Agnihotri et al. cannot issue a response to a request it never receives.

Pessach also fails to supply these missing limitations. Since Pessach fails to supply features missing from Agnihotri, the combination of Agnihotri and Pessach cannot suggest the invention and cannot render the claims obvious. Thus, no matter how Agnihotri and Pessach may be combined (even assuming, arguendo, that one of ordinary skill in the art would be led to combine them) the resulting combination is not the invention recited in any of independent claims 1, 17, and 33.

Furthermore, in rejecting independent claims 1, 17 and 33, the Examiner asserts it would have been obvious to modify Agnihotri with Pessach for the purpose of "allowing subscribers to decide who can know about their availability of resources." This motivation to combine is improper.

First, a purpose of Pessach is the sharing of resources. Thus, one peer device must inform another peer device that it has available resources. At that point, the alleged

privacy in Pessach is broken. Thus, Pessach does not support this alleged privacy as suggested by the Examiner.

In addition, to the extent the Examiner is arguing that the owner of a peer device has the power to NOT share the availability in his peer device, Applicant does not find support for that conclusion in either paragraph [0095] or [0111] of Pessach. In other words, if the Examiner is suggesting that peer device A has available resources and receives requests for resources from peer devices X and Y, the owner of peer device A can elect to let peer device X know it has available resources while not allowing peer device Y to know it has available resources. Applicant cannot find a description of this selectivity in paragraphs [0095] and [0111].

Applicant also argues that the combination of Agnihotri and Pessach is improper because a) they are divergent systems and b) the combination destroys some purposes of Agnihotri.

Agnihotri uses centralized control via resource sharing controller 370 and resource sharing server 130 to determine which resources are to be shared and when. See generally paragraph [0037]. Pessach is a peer-to-peer system without centralized control. See generally paragraph [0006]. Applicant asserts it is improper to combine these two divergent references because the end result cannot be a system that is both centralized and not centralized.

In addition, the proposed combination destroys some of the purposes of Agnihotri. One purpose of Agnihotri is to use resource sharing controller 370 to program redundant playback devices in case an additional conflict arises. See paragraph [0037]. Pessach does not do this because it does not have a centralized resource where it can go

to look for secondary and tertiary peer devices for redundancy. Thus, to re-invent Agnihotri into a decentralized peer-to-peer system as suggested by Examiner using Pessach would destroy Agnihotri's ability to program redundant playback devices from a centralized source. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006) (quoting *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994)). Agnihotri *teaches away* from the decentralized peer-to-peer system of Pessach. Pessach similarly teaches away from the centralized system of Agnihotri. Accordingly, the combination of Agnihotri and Pessach is improper.

Applicants respectfully request withdrawal of the rejection of claims 1, 17, and 33 under 35 U.S.C. § 103(a).

Claims 2, 3, 18, and 19

Claims 2 and 3 are allowable at least because they depend from independent base claim 1, which is an allowable base claim for at least the reasons discussed above.

Claims 18 and 19 are allowable at least because they depend from independent base claim 17, which is an allowable base claim for at least the reasons discussed above.

Applicants respectfully request withdrawal of the rejection of claims 2, 3, 18, and 19 under 35 U.S.C. § 103(a).

Group 2 – Claims 4, 6-16, 20 and 22-32

Claims 4, 6-16, 20 and 22-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Agnihotri and Pessach in view of U.S. Patent Publication No. 2003/0237097 to Marshall et al. (hereinafter "Marshall"). The rejections of claims 4, 6-16, 20 and 22-32 under 35 U.S.C. § 103(a) are respectfully traversed.

Claims 4 and 20

Claim 4 is allowable at least because claim 4 depends from independent base claim 1, which is an allowable base claim for at least the reasons discussed with respect to Group 1 above. Claim 20 is allowable at least because claim 20 depends from independent base claim 17, which is an allowable base claim for at least the reasons discussed with respect to Group 1 above.

In addition, claims 4 and 20 recite one DVR instructing a second DVR to tune to a particular channel. With respect to claims 4 and 20, Applicant respectfully disagrees with the Examiner's position. Marshall's paragraph [0015] recites a computer 110 being used to instruct a PVR to tune to a channel. Computer 110 is presented in Marshall's Fig. 1 alongside a plurality of PVRs. Since computer 110 is not a PVR as shown by Marshall, it follows that the tuning instruction referenced in Marshall's paragraph [0015] does not come from a "requesting DVR" as recited in claims 4 and 20.

Accordingly, Applicants respectfully request withdrawal of the rejection of claims 4 and 20 under 35 U.S.C. § 103(a).

Claims 14 and 30

Claim 14 is allowable at least because claim 14 depends from independent base claim 1, which is an allowable base claim for at least the reasons discussed with respect

to Group 1 above. Claim 30 is allowable at least because claim 30 depends from independent base claim 17, which is an allowable base claim for at least the reasons discussed with respect to Group 1 above.

Furthermore, in rejecting claims 14 and 30, the Examiner asserts Agnihotri teaches commands from the requesting DVR to the granting DVR in paragraph [0030]. This is incorrect. Agnihotri describes commands from a remote control and not a requesting DVR in paragraph [0030]. Applicant notes the Examiner did not respond to this argument in the Final Rejection.

Accordingly, Applicants respectfully request withdrawal of the rejection of claims 14 and 30 under 35 U.S.C. § 103(a).

Claims 6-13, 15, 16, 22-29, 31, and 32

Claims 6-13, 15, and 16 are allowable at least because they depend from independent base claim 1, which is an allowable base claim for at least the reasons discussed with respect to Group 1 above.

Claims 22-29, 31, and 32 are allowable at least because they depend from independent base claim 17, which is an allowable base claim for at least the reasons discussed with respect to Group 1 above.

Accordingly, Applicants respectfully request withdrawal of the rejection of claims 6-13, 15, 16, 22-29, 31, and 32 under 35 U.S.C. § 103(a).

Group 3 – Claims 5 and 21

Claims 5 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Agnihotri, Pessach, and Marshall in view of U.S. Patent No. 6,637,027 to Breslauer et al. (hereinafter "Breslauer"). The rejections of claims 5 and 21 under 35 U.S.C. § 103(a) are respectfully traversed.

Claim 5

Claim 5 is allowable at least because claim 5 depends from independent base claim 1, which is an allowable base claim for at least the reasons discussed with respect to Group 1 above.

In addition, in rejecting claim 5, the Examiner asserts Agnihotri describes advising the requesting DVR that said access is not available in paragraph [0039]. Applicant disagrees. Nowhere in paragraph [0039] is accessibility of a particular channel discussed. Paragraph [0039] describes determining which DVR is available to perform a task based on video playback device (VPD) data files 401, 402 and 403. VPD data files only store information related to a DVR's a) recording schedule, b) disk statistics (e.g., how much free space is available for recording new material) and c) network address. A VPD data file does not indicate which channels a DVR has conditional access to receive.

In response to this argument, the Examiner asserts he relied on Breslauer to teach the accessibility of a particular channel. However, page 16 of the Final Rejection states: "Agnihotri discloses the method wherein advising the requesting DVR that said access in not available (see page 4, paragraph 39)." Accordingly, Applicant asserts that the Examiner's arguments do not parallel the rationale provided in rejecting claim 5.

In addition, the Examiner asserts that Breslauer teaches one DVR advising a second DVR that it does not have access to a particular channel in column 8, lines 20-28 and column 9, lines 57-63. Applicant disagrees. Nowhere in these passages does Breslauer describe any interaction between two devices. It appears a single device is determining if access can be granted for a particular piece of content in Breslauer's column 8, lines 20-28 and column 9, lines 57-63. Thus, there is no advising going on from one DVR to another.

In response to this argument, the Examiner asserts that since Breslauer is teaching conditional access for a single machine to a particular channel or multimedia segment and Agnihotri is teaching communication between plural DVRs, it follows that the plural DVRs could be modified in Agnihotri to share conditional access information. The Examiner is assuming that is permissible for one device to send a copy of its conditional access data to another device. However, the Examiner fails to comment on how this shared conditional access information will be controlled. Since conditional access systems are designed to keep some devices from receiving some forms of content, it follows that if this information is shared too freely, the system would break down. Thus, Applicant asserts that the proposed combination of Agnihotri, Pessach, Marshall and Breslauer would destroy conditional access systems and thus would not be obvious to one of ordinary skill in the art.

Accordingly, Applicants respectfully request withdrawal of the rejection of claim 5 under 35 U.S.C. § 103(a).

Claim 21

Claim 21 is allowable at least because claim 21 depends from independent base claim 17, which is an allowable base claim for at least the reasons discussed with respect to Group 1 above. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 21 under 35 U.S.C. § 103(a).

(VIII) Claims Appendix

A copy of the currently pending claims is attached.

(IX) Evidence Appendix

No additional evidence is provided in an evidence appendix.

(X) Related Proceedings Appendix

No related proceedings are provided in a related proceedings appendix.

Respectfully submitted,
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VIII - CLAIMS APPENDIX

1. (Previously presented) A method for providing a multi-device distributed digital video recording system, comprising:

broadcasting a request from a requesting digital video recorder (DVR) to a plurality of networked DVRs seeking resources of a dormant DVR;

receiving a response to the request from at least one dormant DVR in the plurality of networked DVRs indicating availability of resources;

selecting a granting DVR from the at least one dormant DVR with available resources;

establishing a session between said requesting DVR and said granting DVR; and

providing resources of said granting DVR for use by said requesting DVR.

2. (Original) A method in accordance with claim 1, wherein said resources include at least one of a tuner and a storage device.

3. (Original) A method in accordance with claim 1, wherein:

said resources comprise a tuner of said granting DVR; and

control of said tuner is turned over to said requesting DVR.

4. (Previously presented) A method in accordance with claim 1, further comprising:

requesting by the requesting DVR that said granting DVR tune to a particular channel and record designated content from said channel; and

storing said designated content at said granting DVR for use by said requesting DVR.

5. (Previously presented) A method in accordance with claim 4, wherein said granting DVR does not have access to the particular channel, further comprising:

advising the requesting DVR that said access to the particular channel is not available;

requesting access to the particular channel by the requesting DVR on behalf of the granting DVR.

6. (Original) A method in accordance with claim 4, wherein:

a fee is charged to the requesting DVR for the designated content.

7. (Original) A method in accordance with claim 4, further comprising:

tagging the recorded designated content as being owned by said requesting DVR.

8. (Original) A method in accordance with claim 7, further comprising:

encrypting the recorded designated content with an encryption key known to said requesting DVR.

9. (Original) A method in accordance with claim 8, further comprising:

making said encrypted recorded designated content available to said granting DVR.

10. (Original) A method in accordance with claim 9, wherein said encrypted designated content is made available to said granting DVR for a fee.

11. (Original) A method in accordance with claim 4, further comprising:

requesting access to said stored designated content by said requesting DVR; and

uploading the stored designated content from the granting DVR to said requesting DVR.

12. (Original) A method in accordance with claim 4, further comprising:

requesting access to said stored designated content by said requesting DVR; and

streaming the stored designated content from the granting DVR to said requesting DVR.

13. (Original) A method in accordance with claim 12, further comprising:

controlling presentation of said streamed designated content utilizing a command and control channel to send commands from said requesting DVR to said granting DVR.

14. (Original) A method in accordance with claim 13, wherein said commands comprise at least one of play, stop, pause, fast forward, rewind, skip, and jump.

15. (Original) A method in accordance with claim 4, further comprising:

automatically forwarding said stored designated content to a storage device at said requesting DVR.

16. (Original) A method in accordance with claim 4, further comprising:

routing said request for resources through a system operator;

wherein multiple requests for identical designated content from multiple requesting DVRs are handled by a single granting DVR.

17. (Previously presented) A multi-device distributed digital video recording system, comprising:

a plurality of networked digital video recorders;

a requesting digital video recorder (DVR) capable of broadcasting a request to said plurality of networked DVRs seeking resources of a dormant DVR;

at least one dormant DVR in the plurality of networked DVRs capable of receiving the request and for providing a response to said requesting DVR indicating availability of resources;

wherein:

said requesting DVR selects a granting DVR from the at least one dormant DVR with available resources;

a session is established between said requesting DVR and said granting DVR; and

resources of said granting DVR are made available for use by said requesting DVR.

18. (Original) A system in accordance with claim 17, wherein said resources include at least one of a tuner and a storage device.

19. (Original) A system in accordance with claim 17, wherein:

said resources comprise a tuner of said granting DVR; and

control of said tuner is turned over to said requesting DVR.

20. (Original) A system in accordance with claim 17, wherein:

said requesting DVR requests that said granting DVR tune to a particular channel and record designated content from said channel; and

said granting DVR stores said designated content for use by said requesting DVR.

21. (Original) A system in accordance with claim 20, wherein:

said granting DVR does not have access to the particular channel;

said granting DVR advising the requesting DVR that said access is not available;

said requesting DVR requests access to the particular channel on behalf of the granting DVR.

22. (Original) A system in accordance with claim 20, wherein:

a fee is charged to the requesting DVR for the designated content.

23. (Original) A system in accordance with claim 20, wherein:

said granting DVR tags the recorded designated content as being owned by said requesting DVR.

24. (Original) A system in accordance with claim 23, wherein:

said granting DVR encrypts the recorded designated content with an encryption key known to said requesting DVR.

25. (Original) A system in accordance with claim 24, wherein:

said encrypted recorded designated content is made available to said granting DVR.

26. (Original) A system in accordance with claim 25, wherein:

said encrypted designated content is made available to said granting DVR for a fee.

27. (Original) A system in accordance with claim 20, wherein:

said requesting DVR requests access to said stored designated content; and

the stored designated content is uploaded from the granting DVR to said requesting DVR.

28. (Original) A system in accordance with claim 20, wherein:

said requesting DVR requests access to said stored designated content; and

the stored designated content is streamed from the granting DVR to said requesting DVR.

29. (Original) A system in accordance with claim 28, wherein:

said requesting DVR controls presentation of said streamed designated content utilizing a command and control channel to send commands to said granting DVR.

30. (Original) A system in accordance with claim 29, wherein:

said commands comprise at least one of play, stop, pause, fast forward, rewind, skip, and jump.

31. (Original) A system in accordance with claim 20, wherein:

said granting DVR automatically forwards said stored designated content to a storage device at said requesting DVR.

32. (Original) A system in accordance with claim 20, wherein:

said request for resources is routed through a system operator; and

multiple requests for identical designated content from multiple requesting DVRs are handled by a single granting DVR.

33. (Previously presented) A digital video recorder (DVR) for use in a multi-device distributed digital video recording system, comprising:

at least one tuner;

at least one storage device;

a processor enabled for at least one of:

(a) broadcasting a request to a plurality of networked DVRs seeking resources of at least one dormant DVR;

receiving a response to the request from the at least one dormant DVR indicating availability of resources;

selecting a granting DVR from the at least one dormant DVR with available resources;

establishing a session with said granting DVR; and

utilizing resources of said granting DVR; and

(b) receiving a broadcast request from a requesting DVR seeking available resources;

responding to said requesting DVR regarding availability of resources;

if resources are available and if selected by said requesting DVR, establishing a session with said requesting DVR; and

providing resources for use by said requesting DVR.